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File  50:CAB Abstracts 1972-1998/Jul
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    Set  Items  Description
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? s birna?
    S1    1745  BIRNA?
? s ibdv or ipnv
         439  IBDV
         210  IPNV
    S2    646  IBDV OR IPNV
? s infectious(w)bursal or gumboro or pancreatic(w)necrosis
       19869  INFECTIOUS
        2447  BURSAL
        1726  INFECTIOUS(W)BURSAL
         389  GUMBORO
        7734  PANCREATIC
       16428  NECROSIS
         679  PANCREATIC(W)NECROSIS
    S3   2535  INFECTIOUS(W)BURSAL OR GUMBORO OR
PANCREATIC(W)NECROSIS
? s s1 or s2 or s3
        1745  S1
         646  S2
        2535  S3
    S4   2608  S1 OR S2 OR S3
? s vp5
    S5     97  VP5
? s s4 and s5
        2608  S4
          97  S5
    S6      5  S4 AND S5
? t s6/7/1-5

 6/7/1
DIALOG(R)File  50:CAB Abstracts
(c) 1998 CAB International. All rts. reserv.
03420755   CAB Accession Number: 972212226
  VP5 of infectious bursal disease virus is not essential for viral
replication in cell culture.
  Mundt, E.; Kollner, B.; Kretzschmar, D.
  Institute of Molecular and Cellular Virology, Friedrich Loeffler
Institutes, Federal Research Center for Virus Diseases of Animals, D-17498
Insel Riems, Germany.
  Journal of Virology  vol. 71 (7):  p.5647-5651
  Publication Year:  1997
  ISSN:  0022-538X
  Language:  English
  Document Type:  Journal article
  Infectious bursal disease virus (IBDV) encodes in its bisegmented
double-stranded RNA genome 4 structural virion proteins, VP1, VP2, VP3,
and VP4, as well as a nonstructural protein, VP5. A VP5- IBDV mutant
constructed by site-directed mutagenesis of the methionine start codon of
VP5, followed by cRNA transfection, was replication competent in cell
culture, which indicates that VP5 is not required for productive
replication of IBDV. Absence of VP5 expression was verified by lack of
reactivity with newly established anti-VP5 monoclonal antibodies and
polyclonal sera. VP5- IBDV showed a delay in replication in chicken embryo
cells compared to the VP5+ parental virus. However, final yields were
similar. These results show that VP5 is nonessential for IBDV replication,
which makes it a prime candidate for the construction of deleted, marked
vaccines.  15 ref.

6/7/2
DIALOG(R)File  50:CAB Abstracts
(c) 1998 CAB International. All rts. reserv.
03321557   CAB Accession Number: 972200747
  Synthetic transcripts of double-stranded birnavirus genome are
infectious.
  Mundt, E.; Vakharia, V. N.
  Federal Research Center for Virus Disease of Animals,
Friedrich-Loeffler-Institutes, Institute of Molecular and Cellular
Virology, D-17498 Insel Riems, Germany.
  Proceedings of the National Academy of Sciences of the United States of
America  vol. 93 (20):  p.11131-11136
  Publication Year:  1996
  ISSN:  0027-8424
  Language:  English
  Document Type:  Journal article
  Independent full-length cDNA clones were constructed that contained the
entire coding and non-coding regions of RNA segments A and B of 2
distinguishable infectious bursal disease virus (IBDV) strains of serotype
1. Segment A encodes all of the structural (VP2, VP4 and VP3) and
non-structural (VP5) proteins, whereas segment B encodes the RNA-dependent
RNA polymerase (VP1). Synthetic RNAs of both segments were produced by in
vitro transcription of linearized plasmids with T7 RNA polymerase.
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Transfection of Vero cells with combined plus-sense transcripts of both segments generated infectious virus as early as 36 h after transfection. The infectivity and specificity of the recovered chimeric virus was ascertained by the appearance of cytopathic effect in chicken embryo cells, by immunofluorescence staining of infected Vero cells with rabbit anti-IBDV serum, and by nucleotide sequence analysis of the recovered virus, respectively. In addition, transfectant viruses containing genetically tagged sequences in either segment A or segment B of IBDV were generated to confirm the feasibility of this system. It is suggested that the development of a reverse genetics system for double-stranded RNA viruses will greatly facilitate studies of the regulation of viral gene expression, pathogenesis and design of a new generation of live vaccines. 23 ref.

6/7/3
DIALOG(R)File 50:CAB Abstracts

03208270 CAB Accession Number: 962205837
Identification of a novel IBDV-specific protein VP5.
Mundt, E.; Beyer, J.
Immunobiology of viral infections. Proceedings 3rd Congress of the European Society for Veterinary Virology Interlaken, Switzerland, 4-7 September, 1994.
Conference Title: Immunobiology of viral infections. Proceedings 3rd Congress of the European Society for Veterinary Virology Interlaken, Switzerland, 4-7 September, 1994.
p.507-512
Publication Year: 1995
Editors: Schwyzer, M.; Ackermann, M. (Editors)
Publisher: Foundation Marcel Merieux Lyon, France
ISBN: 2-84039-042-6
Language: English
Document Type: Conference paper
19 ref.

6/7/4
DIALOG(R)File 50:CAB Abstracts

03097014 CAB Accession Number: 952214676
Characterization of the small open reading frame on genome segment A of infectious pancreatic necrosis virus.
Heppell, J.; Tarrab, E.; Berthiaume, L.; Lecomte, J.; Arella, M.
Institut Armand-Frappier, Centre de Recherche en Virologie, 531 Boulevard des Prairies, Laval Quebec H7N 4Z3, Canada.
Journal of General Virology vol. 76 (8): p.2091-2096
Publication Year: 1995
ISSN: 0022-1317
Language: English
Document Type: Journal article
The genome of infectious pancreatic necrosis virus (IPNV) is composed of 2 segments of dsRNA. The larger segment contains a small ORF partly overlapping the 5' end of the polyprotein reading frame. Yet very little is known about this possible new gene, which presumably codes for a 17 kDa polypeptide (VP5). The region of the viral genome which encompasses the small ORF was reverse-transcribed and amplified by PCR before cloning and sequencing. Analysis of the sequences obtained from 5 different virus strains showed that the small ORF is not found on one of them, and that it is truncated on 2 others. The deduced amino acid sequences did not appear to be well conserved. Despite the large variations between IPNV strains at the genomic level, all predicted VP5 are arginine-rich basic polypeptides. To verify whether the small ORF is translated into protein in fish cells, the 17 kDa polypeptide of the VR-299 strain was expressed as a fusion protein in a prokaryotic expression vector and used to produce a specific antiserum which reacted with concentrated virus in an immunodot assay, indicating that VP5 is synthesized in infected cells, but probably only in small quantities. When tested with 12 other IPNV strains, results were less conclusive than those obtained with strain VR-299. Nevertheless, 3 of the 12 viruses gave a clearly negative signal in the immunodot assay, suggesting that possibly more than one viral strain lacks the small ORF. 27 ref.

6/7/5
DIALOG(R)File 50:CAB Abstracts

02975487 CAB Accession Number: 952202719
Identification of a novel viral protein in infectious bursal disease virus-infected cells.
Mundt, E.; Beyer, J.; Muller, H.
Federal Research Centre for Virus Diseases of Animals, D-17498 Insel Riems, Germany.
Journal of General Virology vol. 76 (2): p.437-443
Publication Year: 1995
ISSN: 0022-1317
Language: English
Document Type: Journal article
Infectious bursal disease virus (IBDV) specifies 2 genomic double-stranded RNAs, segment A and segment B. Segment A encodes a 110 kDa polyprotein which is processed into virus proteins VP2, VP3 and VP4. A second open reading frame (ORF), designated ORF A-2, immediately preceding and partially overlapping the 110 kDa protein gene has also been described. After prokaryotic expression of the ORF, immunization of rabbits with the expressed protein produced reagents for the identification of the ORF A-2 gene product in IBDV-infected cells. The ORF A-2 protein had an apparent molecular mass of 21 kDa which is larger than

the 16.5 kDa calculated from the deduced amino acid sequence. Immunofluorescence assays detected the ORF A-2 protein in bursa samples from IBDV-infected chickens. It is concluded that the IBDV ORF A-2 product represents the fifth IBDV protein described and it is proposed that it should be designated IBDV VP5. 30 ref.

? log hold

28aug98 15:18:30 User208669 Session D1255.2
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$9.75 Estimated cost this search
$9.89 Estimated total session cost 1.042 DialUnits
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